

ABSTRACT OF THE DISCLOSURE

The present invention is drawn to a method for characterising nucleic acid molecules, which comprises the steps of: i) introducing a modified base which is a substrate for a DNA glycosylase into a DNA molecule; ii) excising the modified base with the DNA glycosylase to generate an abasic site; iii) cleaving the DNA at the abasic site to generate and release an extendible upstream DNA fragment having a 3' hydroxyl terminus; and iv) incubating the released extendible upstream DNA fragment in the presence of an enzyme allowing for extension thereof and an additional template nucleic acid and analysing resultant fragment(s).